




MEMORANDUM

Missouri Department of Transportation Design General Headquarters

TO: All General Headquarters and District Offices

FROM: Diane Heckemeyer
State Design Engineer 

DATE: July 1, 2004

SUBJECT: Design
Development Manual Letter No. 5, 2004
Project Development Manual Revisions

Questions concerning the Project Development Manual revisions should be directed to the Design Division Standards Section, Dan Tschirgi (573) 526-2924 or Joe Jones (573) 751-3813.

NOTE	EXPLANATION
1	The following revisions are effective July 1, 2004.
2	In all sections that are being revised, references to functional units in General Headquarters (GHQ) are being changed to "Division" or "Central Office".

ITEM	DESCRIPTION OF REVISION
Volume I Table of Contents	Revision dates changed for appropriate sections.
Chapter I Table of Contents	Revisions made to the table of contents corresponding with section and figure revisions.
Section 1-03	In Subsection 1-03.7, the sample label for project agreements has been corrected.
Chapter II Table of Contents	Revisions made to the table of contents corresponding with section and figure revisions.
Section 2-04	Subsection 2-04.4 was revised to contain the current noise policy. The document entitled "Traffic Noise Policy" has been provided as a link in Subsection 2-04.4(1). In Subsection 2-04.4(1)(a), the terms "approach" and "substantially exceed" have been defined as they apply to traffic noise impacts. In Subsection 2-04.4(1)(b), the cost share arrangement has been revised as follows. The local government entity must provide at least 50% of the cost. The Commission will provide the remaining funds. In Subsection 2-04.4(2), several points were added with additional design considerations for sound walls.

ITEM	DESCRIPTION OF REVISION
Section 4-04	Guidance on concrete traffic barrier has been added to Subsection 4-04.5(2). Type C (and Type D as required) are preferred for new construction. Type A (and Type B as required) should only be used on retrofit projects or to tie into existing barrier.
Figure 4-07.2	<p>This figure was revised to show the longitudinal expansion joints on either side of a painted flush or raised curb median. One side should be a Type E Joint, with the other side being a Type L or K Joint.</p> <p>Two additional notes were added regarding sidewalks. When a sidewalk is warranted, a barrier curb is provided and the Type U2 shoulder is eliminated. If a sidewalk is not warranted, a Type U2 shoulder is provided with a mountable curb.</p>
Figure 4-07.3	This figure was revised to show the longitudinal expansion joints on either side of barrier median on a principal arterial street. One side should be a Type E Joint, with the other side being a Type L Joint.
Figure 4-07.4	This figure was revised to show the longitudinal expansion joint on one side of barrier median on a 6 lane freeway. A Type E Joint should be placed on one side or the other as shown, but not on both sides.
Section 4-09	<p>Subsection 4-09.14(2) has been revised to ensure ditch configuration and erosion control method are considered when a ditch is located in the clear zone. In Subsection 4-09.7, the cross reference to 3-strand guard cable has been corrected to Subsection 4-04.5(2). In Subsection 4-09.19 the meaning of contracted project has been clarified. MoDOT Maintenance forces should not perform work on any contracted project regardless of the funding source.</p> <p>The following revisions have been made to Subsection 4-09.25 regarding pedestrian and bicycle criteria. In Subsection 4-09.25(2), “pedestrian paths” and “bicycle lanes separated from the travelway” have been added as types of operating facilities for non-motorized travelers. Also the “<i>Guide For The Planning Design and Operation of Pedestrian Facilities</i>” has been added as a source for guidance. In Subsection 4-09.25(2)(a), three points were added to the design criteria for sidewalks. The points address appropriate separation of the sidewalk from the travelway depending on the type of roadway. Also in Subsection 4-09.25(2)(a), the second and third bullet points under sidewalk thickness exceptions have been deleted, and replaced with a statement that sidewalks across private approaches, streets, side roads, alleys or commercial approaches should be the same thickness as the paved approach. In Subsection 4-09.27 the procedures for submitting leveling course projects have been revised. The traffic control plans and job special provisions should be prepared and submitted by the districts.</p>
Volume II Table of Contents	Revision dates changed for appropriate sections.

Section 6-05	In Subsection 6-05.4 Pavement Repair, a minimum dimension for Class A repair of 16" x 16" was added, corresponding to changes in Standard Plan 613.20. Smaller dimensions cause construction problems that increase repair costs.
Figure 6-07.1	In this figure, no estimate factors are given for Item 402-05.20A Plant Mix Bituminous Surface Leveling. The best source for estimate factors for this item is District Operations. Therefore, the note has been revised to reference District Operations instead of Central Office Maintenance as the source to obtain estimate factors.
Chapter VIII Table of Contents	Revisions made to the table of contents corresponding with section and figure revisions.
Section 8-02	This section was updated for the process of specifying signal signs, since they are no longer Commission furnished. Subsection 8-02.9(5) now explains that all signal signs are listed on the D37A Sheet for selection and totaling of the sign area. In Subsection 8-02.11(5), the reference to Commission furnished has been removed for the pedestrian crosswalk signs.
Section 8-04	In Subsections 8-04.2(2)(e) and (f), the designations for the Stop Ahead and Yield Ahead signs have been corrected to be consistent with the D-2BS Sheet. Subsection 8-04.2(2)(z) was revised to change the "CENTER/RIGHT/LEFT LANE CLOSED AHEAD" sign from WO9-3 to WO20-5 to be consistent with the sign designation on the D-2BS sheet and the Sign Catalog.
Figure 8-04.2	Sign No. 5 in the figure, WO9-3 "CENTER, LEFT OR RIGHT LANE CLOSED AHEAD" was changed to WO20-5 to be consistent with the sign designation on the D-2BS sheet and the Sign Catalog.
Section 9-04	Subsection 9-04.2 was revised to consider clear zones in erosion control method selection. Also, rock ditch liner should be Type 1 when located within the clear zone.
D-2BS	The pay item numbers on the D-2BS Sheet for Installing "Drive Smart" signs and Contractor Furnished/Commission Retained Temporary Concrete Traffic Barrier, Type F were incorrect and have been revised. The pay item for Pavement Edge Treatment has been removed from the D-2BS Sheet to eliminate duplication. The quantities and location of pavement edge treatment should be listed on the 2B Sheet as stated in Subsection 8-04.17.
D37A	The last group of columns pertaining to signal signs has been revised. Since the signal signs are no longer listed in Standard Plan 902.80, they have been placed on the D37A Sheet with the area of each sign and spaces for totaling. A new bid item number has been referenced for the total area of signal signs.
Bid Items	The bid item listing issued 7/1/04 has been attached.

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